THE CLAIMS:

1. A method for the detection of bioactive peptides derived from a precursor protein or protein-containing biological extract, comprising the steps of:

(i) providing a library of peptides derived from said precursor protein or protein-containing biological extract;

(ii) optionally screening said library to confirm that it includes peptides exhibiting one or more biological activities;

(iii) separating said library to provide fractions of the library;

(iv) screening said fractions to identify active fractions which include peptides exhibiting said one or more biological activities;

(v) optionally separating each said active fraction to provide sub-fractions thereof, and screening said sub-fractions to identify active sub-fractions which include peptides exhibiting said one or more biological activities; and

(vi) isolating from said active fractions or active sub-fractions one or more peptides exhibiting said one or more biological activities.

2. The method according to claim 1, wherein said library of peptides is derived by enzymatic cleavage of the precursor protein or protein-containing biological extract.

3. The method according to claim 1, wherein said library of peptides is derived by chemical cleavage of the precursor protein or protein-containing biological extract.

4. The method according to claim 1, wherein said library of peptides is derived by physical digestion of the precursor protein or protein-containing biological extract.

5. The method according to any one of claims 1 to 4 wherein said precursor protein or protein-containing biological extract, or said unfractionated peptide library, is subjected to a determination of optimal cleavage conditions by monitoring the extent or progress of cleavage or digestion.

6. The method according to claim 5, wherein said determination comprises mass spectometry analysis.

7. The method according to claim 6 wherein said determination comprises MALDI-ToF MS analysis.

8. The method according to any one of claims 6 or 7 wherein said determination is automated.

9. The method according to claim 1, wherein said library of peptides is provided by chemical synthesis.

10. The method according to any one of claims 1 to 9, wherein said peptides comprise at least 2 amino acids.

11. The method according to claim 9, wherein said peptides comprise at least 5 amino acids.

12. The method according to any one of claims 1 to 11 wherein said peptides are peptide variants.

13. The method according to any one of claims 1 to 12, wherein said peptides comprise peptides whose biological activity is predictable by amino acid sequence analysis.

14. The method according to any one of claims 1 to 12, wherein said peptides comprise peptides whose biological activity is not predictable by amino acid sequence analysis.

15. The method according to any one of claims 1 to 14 wherein said precursor protein is a naturally occurring protein.

16. The method according to any one of claims 1 to 14 wherein said precursor protein is a non-naturally occurring protein.

17. The method according to any one of claims 1 to 14 wherein said precursor protein is a recombinant protein.

18. The method according to any one of claims 1-17 wherein said biological activity is agonist activity.

19. The method according to any one of claims 1-17 wherein said biological activity is antagonist activity.

20. The method according to any one of claim 1-19 wherein said biological activity relates to any human condition.

21. The method according to claim 20 wherein said biological activity relates to conditions selected from the group consisting of arterial and venous thrombosis, inflammation, angiogenesis and cancer.

22. The method according to any one of the preceding claims wherein said screening of step (ii) and/or step(iv) is carried out using an assay selected from the group consisting of biochemical-based assays and cell-based assays.

23. The method according to claim 22 wherein said assay is selected from the group consisting of luminescence based assays for platelet activation, laser-based methods for Prothrombin Time and Activated Partial Thromboplastin Time, luminescence and fluorescence based detection of cell proliferation, cell toxicity and apoptosis and *in vivo* assays.

24. The method according to claims 22 or 23 wherein said assay is high throughput and automated.

25. The method according to any one of the preceding claims wherein said fractionation of step (iii) and/or step (v) is carried out by a fractionation method selected from the group consisting of chromatography, field flow fractionation and electrophoresis.

26. The method according to claim 25 wherein said fractionation of step (iii) and/or step (v) is carried out by chromatography.

27. An isolated peptide exhibiting one or more biological activities, which has been detected by the method according to any one of claims 1-26.

28. The method according to claim 1 substantially as hereinbefore described with reference to the examples and/or figures.